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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte DANIEL VIERA CONRAD, JOHN CHRISTIAN FLUKE, and
JEFFREY LYNN HARMON

Appeal 2008-0190
Application 09/207,130
Technology Center 3600

Decided: April 30, 2008

Before JENNIFER D. BAHR, LINDA E. HORNER, and
BIBHU R. MOHANTY, *Administrative Patent Judges*.

HORNER, *Administrative Patent Judge*.

DECISION ON APPEAL

Daniel Viera Conrad et al. (Appellants) seek our review under 35 U.S.C. § 134 of the final rejection of claims 1-15. We have jurisdiction under 35 U.S.C. § 6(b) (2002). We reverse.

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The Appellants' claimed invention is to a method and system for allowing testing of an application for point-of-sale (POS) equipment to facilitate development of the application (Spec. 1:4-7). POS equipment, such as a cash register, is often coupled to other specialized devices such as scales, keyboards, scanners, etc. (Spec. 1:11-16). The POS equipment executes applications which use the specialized devices (Spec. 1:17). When developers develop these applications, they must test the software on the POS device and its connected specialized devices. This testing is cumbersome because a set of the POS equipment and attached devices must be made available to developers in a lab, and the developers must copy a portion of the application from the development system and download it to the POS equipment for testing (Spec. 2:5-21). The Appellants' invention uses an emulation module corresponding to the specialized devices that can be used to emulate, on the development system, the interaction between the application and the devices that will occur when the application is later executed on the POS equipment (Spec. 3:11-19). In the Appellants' invention, as recited in independent claims 1, 7, 8, 14, and 15, the emulation module and the application both interface directly with the operating system of the development system.

The Appellants seek our review of the Examiner's rejection of claims 1-15 under 35 U.S.C. § 103 as unpatentable over U.S. Patent No. 5,088,033 to Binkley, issued February 11, 1992 and U.S. Patent No. 5,812,668 to Weber, issued September 22, 1998.

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The issue before us is whether the combined teachings of Binkley and Weber would have led one having ordinary skill in the art to the method, system, and computer readable medium as claimed wherein the emulation module and the application both interface directly with the operating system of the development system.

“Section 103 forbids issuance of a patent when ‘the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.’” *KSR Int'l Co. v. Teleflex Inc.*, 127 S.Ct. 1727, 1734 (2007). The question of obviousness is resolved on the basis of underlying factual determinations including (1) the scope and content of the prior art, (2) any differences between the claimed subject matter and the prior art, (3) the level of skill in the art, and (4) where in evidence, so-called secondary considerations. *Graham v. John Deere Co.*, 383 U.S. 1, 17-18 (1966). *See also KSR*, 127 S.Ct. at 1734 (“While the sequence of these questions might be reordered in any particular case, the [*Graham*] factors continue to define the inquiry that controls.”)

In rejecting claims under 35 U.S.C. § 103(a), the examiner bears the initial burden of establishing a *prima facie* case of obviousness. *In re Oetiker*, 977 F.2d 1443, 1445 (Fed. Cir. 1992); *see also In re Piasecki*, 745 F.2d 1468, 1472 (Fed. Cir. 1984). Only if this initial burden is met does the burden of coming forward with evidence or argument shift to the appellant. *See Oetiker*, 977 F.2d at 1445; *see also Piasecki*, 745 F.2d at 1472.

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Obviousness is then determined on the basis of the evidence as a whole and the relative persuasiveness of the arguments. *Id.*

The Appellants argue that neither Binkley nor Weber discloses an emulation module and an application both interfacing directly with the operating system of the development system (Reply Br. 5). We agree.

Binkley discloses a host system having a host processor and an emulating processor (col. 3, ll. 13-17). The emulating processor executes sequences of instructions the same as a central processor of the target system (col. 6, ll. 39-42), while the host processor provides emulations of input and output signals corresponding to the I/O devices of the target system (col. 3, ll. 23-32, col. 6, ll. 48-68, col. 7, ll. 17-21; col. 8, ll. 5-30). Binkley discloses that the I/O devices are emulated by the host system using a separate processor that has a specialized operating system which performs only I/O operations (col. 22, ll. 51-57, col. 25, ll. 15-29). As such, in Binkley, an application of the target system executed on the emulating processor would interface with the operating system of the emulating processor, while the emulation module that emulates the I/O devices of the target system would interface with a different, specialized operating system of a separate processor of the host system. Thus, Binkley does not disclose an emulation module and an application both interfacing directly with an operating system of the development system, as recited in independent claims 1, 7, 8, 14, and 15. The Examiner cited to claim 1 of Binkley (col. 59, ll. 31-38 and 50-61) to support the rejection. We do not find anything in these cited passages that describes that the application and emulation module

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interface directly with the same operating system of the development system.

Weber does not cure the deficiency of Binkley. The Examiner relies on Weber to teach a point of sale environment wherein the device is specialized for the point of sale equipment (Ans. 6, citing to col. 65, ll. 54-63). As noted by the Appellants (App. Br. 7, 9), Weber relates to the final point-of-sale system used by an end user, rather than a mechanism for testing applications being developed for use with a point-of-sale system (col. 62, l. 13 – col. 63, l. 8). Thus, Weber does not disclose an emulation module and an application both interfacing directly with an operating system of a development system.

Accordingly, we do not sustain the Examiner's rejection of claims 1, 7, 8, 14, and 15, or their dependent claims 2-6 and 9-13, as unpatentable over Binkley and Weber. The decision of the Examiner to reject claims 1-15 is reversed.

REVERSED

vsh

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